

For End Semester Examination (ESE), 2020

Semester: 6th Semester (Civil Engineering)

Subject: Railway, Bridge & Tunnel Engineering

Subject Code: CV-605

Total Marks: 56

Q. No 1	Fill in the blanks:	Mark= 1× 10=10
a	Drift method of tunnelling is used to construct the tunnels in ____	1
b	In India, the width of metre gauge is ____	1
c	A switch consists of a tangent rail and a ____	1
d	The number of sleepers per rail length is known as ____	1
e	An abutment serves both as a pier and __	1
f	The slope of the tunnel should be decided according to its __	1
g	A pier is a __ supporting structure of a bridge	1
h	Fish plate is a type of __	1
i	The art of providing fresh air in tunnels during and after their construction is called __ in tunnels.	1
j	Spread foundation is a type of __	1
Q. No. 2	Answer all the following questions:	3×5=15
a	State the functions of abutment of a bridge.	3
b	What is sleeper density? On what factors does it depend?	1+2
c	What is creep? What are the possible causes of creep?	1 + 2
d	Define Deck bridge, Semi-through bridge & Through bridge.	1+1+1
e	Give the necessity of tunnels.	3
Q. No. 3	Answer all the following questions:	4 × 4=16
a	State the advantages and disadvantages of tunnels.	2+2
b	Name the components of a bridge and explain them with a neat sketch.	4
c	What are the functions of fixtures and fastenings?	4
d	Draw a neat sketch of right-hand or left hand turnout and show its various component parts.	4
Q. No. 4	Answer all the following questions:	5×3=15
a	How do you define super elevation? What are the objects of providing super elevation on curves of a railway track?	2+3
b	What is a wing-wall? Explain the different types of wing-wall.	1+4
c	Explain various methods of ventilation of tunnels.	5